STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 7575

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| Tariff filing of Washington Electric Cooperative, Inc. re: proposed rate design changes, to take effect December 11, 2009 | ) ) ) | Technical Hearing at Montpelier, Vermont June 4, 2010 |

Order entered: 9/13/2010

PRESENT: Andrea C. McHugh, Hearing Officer

APPEARANCES: Geoffrey Commons, Esq.
Louise Porter, Esq.
for Vermont Department of Public Service

Joshua Diamond, Esq.
Diamond & Robinson, P.C.
for Washington Electric Cooperative, Inc.

## I. INTRODUCTION

In this proceeding, the Vermont Public Service Board ("Board") considers Washington Electric Cooperative, Inc.'s ("WEC") proposed changes to its rate design that were filed on October 27, 2009. The Department of Public Service ("Department") opposes certain features of this proposal related to the inclining block rate structure for the Residential class and the calculation of marginal cost. In this Proposal for Decision, I recommend the Board find that WEC's proposed rate design is just and reasonable and approve WEC's proposal. However, I recommend that the Board reject WEC's proposed treatment of certain regulatory liabilities.

## II. PROCEDURAL HISTORY

On October 27, 2009, WEC filed with the Board revised tariffs and a petition requesting Board approval of proposed rate design changes (Tariff Filing No. 8113), to take effect December 11, 2009.

On November 25, 2009, the Department informed the Board that it had reviewed WEC's proposed tariff filing and recommended that the Board suspend the filing and open an investigation into the proposed rate design changes.

On December 4, 2009, the Board opened this investigation and appointed me to serve as the Hearing Officer in this proceeding.

On December 21, 2009, I held a prehearing conference in this docket. At the prehearing conference, I granted the Department's motion for Louise Porter, Esq., to practice before the Board *pro hac vice* in this proceeding.

On December 23, 2009, WEC made a filing with the Board in which it agreed to a one-month extension of the seven-month deadline for a final order pursuant to 30 V.S.A. § 227. On February 26, 2010, I granted a joint motion to extend the schedule in the docket. Pursuant to that Scheduling Order, WEC agreed to waive the seven-month deadline by an additional two weeks.

On February 4, 2010, I held a public hearing in East Montpelier, Vermont. One member of the public attended the hearing and expressed support for WEC's proposed rate design changes.

On April 9, 2010, I approved the Protective Agreement filed by the parties in this docket. Also on that date, I granted WEC's motion for confidential treatment of electronic spreadsheets previously filed.

On June 4, 2010, I conducted a technical hearing in this docket. At the hearing, I granted WEC's motion to place portions of prefiled testimony and other evidence related to the pricing terms of a power purchase agreement WEC had entered into with Vermont Wind, LLC., under seal.

On June 18, 2010, WEC made a filing with the Board in which it agreed to an extension of the seven-month statutory deadline for a final order to September 15, 2010.

The Department and WEC filed initial briefs on July 2, 2010, and reply briefs on July 23, 2010.

Pursuant to 30 V.S.A. § 8, and based on the record and evidence before me, I present the following findings to the Board.

## III. FINDINGS AND DISCUSSION

### Fully allocated Cost of Service Study

*Findings*

1. WEC filed a revenue-neutral, fully allocated cost of service study ("FACOS") based on its total revenue requirement of $10,965,713. Faryniarz pf. at 9 and 17.

2. The WEC FACOS utilized calendar year 2007 as the test year. It reflects embedded costs of service based on WEC's audited, 2007 financial statements. Faryniarz pf. at 12.

3. The 2007 test year has been normalized to account for the most recent costs associated with, and production levels at, WEC's Coventry Landfill Gas-to-Energy Project ("Coventry Project"). Faryniarz pf. at 10-11.

4. The FACOS allocated costs based on both function (generation, transmission, distribution, or other) and class (Residential, Small Commerical, Large Power, and Lighting). These allocators were applied to assign customer-, energy-, and demand-related costs. Faryniarz pf. at 14.

5. Load research data from several sources, including Central Vermont Public Service Corporation and New Hampshire Electric Cooperative, were used to develop demand, or capacity, allocators. WEC used recently compiled load research data (within approximately 10 years) that reflected the characteristics of its customer mix. Faryniarz pf. at 13.

6. WEC determined that data from the Vermont Load Study II, completed approximately 25 years ago, was too out-of-date to rely upon for allocating demand costs. Faryniarz pf. at 13.

7. WEC eliminated the Seasonal Residential and Seasonal Commercial classes in the FACOS because the only distinction in the cost to serve seasonal customers and other customers relates to the frequency of meter readings (twice per year) and not to differing usage characteristics. Faryniarz pf. at 7.

8. The re-classification of farms that are separately metered from the residence as Small Commercial accurately reflects their usage as small commercial entities. Faryniarz pf. at 8.

9. WEC's FACOS shows the following allocation of costs among customer classes:

| Total Utility | Residential | Small Commercial | Lighting | Large Power |
|---|---|---|---|---|
| $10,965,713 | $9,797,046 | $732,266 | $67,258 | $369,143 |
| Revenue Neutral | 1.67% increase | 7.62% decrease | 20.98% increase | 23.29% decrease |

Faryniarz pf. at 17.

10. The Large Power class decrease reflects normalization due to the loss of load from two of WEC's highest-use, large power customers: Northern Power Systems and Huntington Homes. Faryniarz pf. at 17.

*Discussion*

WEC and the Department agree that the model used to determine WEC's fully allocated class cost of service is appropriate and that the FACOS has accurately identified the differences in costs among the various classes. The Department states that the model "does an adequate job of determining the embedded costs per customer class."[1] However, the Department and WEC disagree on certain rate design elements. WEC asserts that it has allocated costs by function in the appropriate rates.[2] However, the Department opposes the inclining block rate structure and the marginal cost calculations.[3] These issues are discussed in the sections below.

**Residential Rate Design**

*Findings*

11. WEC's proposal for the Residential class includes: (1) an increase of 50 kWh/month to the initial block (the "Baseload Block"), which would raise that block from 150 to 200 kWh/month; (2) an increase of $0.00335/kWh to the initial-block rate which would raise that rate from $0.07387/kWh to $0.07722/kWh; and (3) an increase of $0.01036/kWh to the tail block

1. Exh. WEC SCF-Reb-1 at 15 (Department Response to WEC's First Set of Information Requests dated April 9, 2010).

2. Faryniarz pf. at 21.

3. Department Initial Brief at 1.

rate which would raise that rate from $0.16207/kWh to $0.17243/kWh. Exhs. WEC SCF-6a and WEC SCF-6b.

12. WEC also proposes to increase the residential customer charge by $0.41 from $9.24 to $9.65 per month. Exhs. WEC SCF-6a and WEC SCF-6b.

13. As the first step in designing the proposed residential rates, WEC established the customer charge of $9.65 per month using the embedded customer-related costs for the Residential class as calculated by the FACOS. Second, WEC calculated the Tail Block rate. Lastly, WEC determined the Baseload Block rate. Faryniarz pf. at 31.

14. The customer charge for the Residential class calculated in the cost-of-service study ensures that WEC collects a stable source of revenue, and therefore provides financial stability. Tr. 6/4/10 at 67 (Faryniarz).

15. WEC's proposed residential rate design appropriately collects all of the embedded revenue requirement for the Residential class. Faryniarz pf. at 17.

16. It is not possible to completely avoid cross subsidies within a customer class under a single class-wide tariff, except in specific circumstances such as a customer class of one. Exh. WEC SCF-Reb-1 at 6.

17. The rate design for the Residential class is just and reasonable because it recovers the allocated cost of service and is built upon marginal cost calculations. Faryniarz pf. reb. at 21.

18. For the second step, WEC developed the tail block rate using an estimate of its long-term marginal costs. Faryniarz pf. reb. at 8.

19. The marginal production cost estimate is derived from an average of three components: (1) the cost of the committed contract with Vermont Wind; (2) the estimated cost of power from other intermittent renewable resources; and (3) projected potential costs for power from peaking resources. Faryniarz pf. at 32.

20. The first component is the average 10-year levelized cost of energy, capacity, and renewable energy certificates based on WEC's committed contract with Vermont Wind. This cost reflects a large discount due to WEC's contribution to the Vermont Wind project from a United States Department of Energy ("DOE") grant that it received to help advance wind power projects in Vermont. Faryniarz pf. at 32.

21. The second component is also based on the Vermont Wind contract price for the average 10-year levelized cost of energy, capacity, and renewable energy certificates. However, this portion is not discounted; instead, it reflects costs similar to those that other Vermont utilities will pay for this power supply. This component of the marginal production cost calculation provides an estimate of the true future marginal costs of the power. Faryniarz pf. at 32-33.

22. The third component is based on a 10-year levelized forward broker's quote for on-peak energy that WEC received in January, 2009. WEC has not made a contractual commitment for this component. However, the calculation is based on projected power costs from non-renewable, peaking resources. Faryniarz pf. at 33-34.

23. The three-component average of the long-run marginal production cost estimate was then added to the embedded distribution costs for the Residential class that were identified in the FACOS in order to develop the Tail Block rate of $0.17243 per kWh. Faryniarz pf. at 34; exh. WEC SCF-6a.

24. The proposed Tail Block rate represents a 6.4% increase over the existing Tail Block rate of $0.16207. Exh. WEC SCF-6a.

25. In the final step of the Residential rate design, WEC established the Baseload Block. Faryniarz pf. at 30.

26. The existing Initial Block is based on the low-cost power that WEC receives from the New York Power Authority ("NYPA"). The NYPA Block rate is applicable to the first 150 kWh/month used by Residential customers. Faryniarz pf. at 36.

27. Currently, Seasonal Residential customers receive 38 kWh/month at the NYPA Block rate. Faryniarz pf. at 37.

28. WEC's allocation of NYPA power has declined since its last rate design. The actual normalized WEC allocation of NYPA power is less than 75 kWh/month for residential customers after accounting for the amount dedicated to the Seasonal Residential customers. Faryniarz pf. at 36.

29. WEC's generation mix includes an abundance of relatively inexpensive baseload energy from WEC's landfill-gas generation project ("Coventry Project") and from other low-cost resources. Faryniarz pf. at 37.

30. The Coventry Project dominates WEC's resource portfolio; it provides more than half of WEC's total energy requirements. Faryniarz pf. at 25.

31. WEC's baseload resources are significantly lower in cost than other resources that serve WEC's intermediate or peaking needs. Faryniarz pf. reb. at 8.

32. Although over 400 kWh/month is available from the Coventry Project to supply Residential customers, WEC proposes a Baseload Block amount equal to 200 kWh/month in order to limit bill increases and avoid rate shock. Faryniarz pf. at 25.

33. A Baseload Block of 200 kWh/month will cover a baseload-level of consumption; therefore, all Residential customers will benefit from the inexpensive baseload energy provided by the Coventry Project. Faryniarz pf. at 38.

34. The proposed Baseload Block size for Seasonal Residential customers is 50 kWh/month which is consistent with the NYPA Block allocation of one-quarter of the amount applied to year-round Residential customers. The Baseload Block rates and the Tail Block rates are the same for Seasonal Residential as for year-round Residential customers. Faryniarz pf. at 37; exh. WEC SCF-6b.

35. WEC proposes to set the Baseload Block rate at $0.7722. This rate was set residually based on the amount estimated to be collected from customers under the Tail Block rate (assumed for all usage over 200 kWh per month for year-round Residential customers and over 50 kWh per month for Seasonal Residential customers). In order to avoid overcollection of the cost of service for the class and to ensure revenue-neutrality, the Baseload Block rate is lower than the sum of its estimated marginal production costs and embedded distribution costs identified in the FACOS. Faryniarz pf. at 30; exh. WEC SCF-6a.

36. The Baseload Block rate covers the production costs of WEC's baseload power resources, such as power provided by the Coventry Project and NYPA, and provides some recovery of embedded distribution costs. Faryniarz pf. at 31; Faryniarz pf. reb. at 8.

37. The proposed Baseload Block rate represents a 4.5% increase over the existing NYPA Block rate of $0.07387. Exh. WEC SCF-6a.

38. An inclining block rate-design structure (based on the NYPA block rates) similar to the design proposed by WEC has been in place at WEC and other Vermont utilities for decades. Faryniarz pf. reb. at 3.

39. WEC customers have experienced a billing structure with two differently priced rates for many years. Patt pf. reb. at 4.

40. With the implementation of the proposed rate design, approximately 85 of the Seasonal Residential customers would experience bill increases ranging from 10% to 11.7%. These ratepayers are high-use customers with consumption levels ranging from 3,000 to 10,000 kWh per month. Exh. WEC SCF-6b.

41. The large majority of Seasonal Residential customers would experience a bill increase of no more than 10%. Exh. WEC SCF-6b.

42. No year-round customer in the Residential class would experience a bill increase of more than 6.1%. The large majority of these customers would experience a bill increase of no more than 4%. Customers with consumption levels of 200 kWh per month would experience an 11.7% decrease: 300 kWh per month– a 5.1% decrease; 400 kWh per month– a 2.1% decrease; and 500 kWh per month– a 0.3% decrease. Exh. WEC SCF-6a.

*Discussion*

In this proceeding, the parties provided conflicting testimony and evidence regarding whether WEC's proposed inclining block rate structure would promote energy efficiency and conservation. The parties presented load-shape data and reports on rate design to support their respective positions.[4]

WEC identifies two primary policy objectives to support its proposed inclining block rate structure for the Residential class. WEC wishes to maintain an initial block of power that would allow it to spread the benefits of the relatively low-cost power provided by the Coventry Project

4. 30 V.S.A. § 218(b) states: "The Board shall approve rate designs to encourage the efficient use of natural gas and electricity, including consideration of the creation of an inclining block rate structure for residential rate customers with an initial block of low-cost power available to all residences." However, this docket is narrowly focused on WEC's situation. Accordingly, I do not make any overall policy recommendation to the Board on whether an inclining block rate structure will, as a general matter, promote the efficient use of energy.

to all of its Residential class members.[5] WEC also asserts that an inclining residential rate structure will further its energy efficiency and conservation goals by setting a tail block rate that is noticeable enough to encourage efficiency among its highest-use residential customers.[6]

WEC explains that its proposal for an inclining block rate structure would implement a price signal that reflects the long-run costs associated with additional consumption beyond baseload levels. WEC contends that customers with high consumption levels have the most conservation potential and therefore these customers will focus efforts to reduce inefficient and discretionary consumption based on the price signal. WEC asserts that "if the desired effect occurs, it will likely improve the system load factor and lower costs for all members."[7]

WEC thus asserts that the inclining block structure may lead higher-use customers to make decisions that result in the more efficient use of energy. WEC suggests that inclining block structures educate consumers about the wholesale price environment affecting retail bills and that these rates show customers that more consumption comes at a higher cost to serve.[8]

The Department opposes WEC's proposal for an inclining block rate structure. The Department asserts that the cost to provide the initial block of power (200 kWh) is "not so dramatically different from providing the remaining kWh in the tail block that it warrants an approximately 9.5 cents/kWh difference in price."[9] The Department maintains that the proposed rate design for the Residential class will cause higher-use customers to subsidize lower-use customers.[10] The Department contends that WEC has not presented any cost data to support the idea that higher-use customers cost more to serve than lower-use customers.[11] The Department asserts that inclining block rate structures have not been shown to accurately reflect the cost of

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5. Patt pf. at 5.

6. Patt pf. at 6.

7. Patt pf. at 6.

8. Faryniarz pf. reb. at 13.

9. Becker pf. at 3.

10. Department Initial Brief at 4.

11. Becker pf. at 3.

providing the service and contends that inefficient use of energy could have been a potential result of the historic inclining block rates.[12] In its testimony, the Department presented an alternative proposal based on a uniform energy charge for all units of kWh used by the customer.

I am persuaded that WEC may realize benefits by educating its customers through setting rates based on the costs associated with the choices made regarding its generation mix, choices such as building the Coventry Project, purchasing higher-cost wind power under long-term contracts, or relying on the more volatile energy market. It may prove to be true that implementing this type of rate structure and educating customers on generation costs will lead those customers to make more efficient energy-use choices over the long-term. However, the Department has presented reasonable arguments against this assertion related to cost causation and cross-subsidization. As such, I base my recommendation on the reasons described below.

Both parties acknowledge that, historically, one policy reason to support an initial low cost block of power (the NYPA Block) was to offer customers a cost-effective means to meet a portion of their baseload needs.[13] WEC has presented a proposal that achieves this policy objective. WEC proposes a Baseload Block equal to 200 kWh/month that would cover a baseload level of consumption for its Residential customers. The proposed Baseload Block rate is set high enough to recover the power costs associated with WEC's baseload power resources and provides some recovery of embedded distribution costs.[14]

WEC's policy objective of spreading low-cost power from the Coventry Project to all residential customers is consistent with the Board's policy objective for use of the NYPA power. WEC has testified that over 400 kWh/month is available from the Coventry Project to supply Residential customers. WEC, and its members, decided to invest in the Coventry Project, a low-cost, renewable energy resource, to meet the utility's baseload needs. WEC's proposed Baseload Block will ensure that all Residential class customers benefit from the Coventry Project, in a

12. Exh. WEC-SCF-Reb-1 at 3 and 10.

13. Exh. WEC-SCF-Reb-1 at 4.

14. WEC chose to set the Baseload Block rate residually; it will not recover all of the embedded distribution costs identified in the FACOS for the Residential class. In all rate designs, it is necessary for a utility to residually set one component in order for the result to remain revenue neutral.

manner consistent with the historical policy of ensuring that all residential customers have benefitted from the low-cost NYPA block. Accordingly, I recommend that the Board approve the proposed inclining block rate structure because, in this particular case, it is reasonable and appropriate.

As supported by the findings above, similar inclining block rate-design structures have been in place at WEC and other Vermont utilities for decades. The Department has not presented any evidence to suggest that WEC's historic inclining rates have encouraged inefficient energy use. In its discovery responses, the Department provided a table documenting inclining block rates charged by utilities in Vermont as of March 2010.[15] The table shows that several other utilities currently charge rates similar to the rates proposed by WEC. WEC's proposal would implement rates that are only slightly higher than those that WEC currently charges Residential customers. Additionally, WEC customers are familiar with a billing structure based on two differently priced rates. Furthermore, all customers (with the exception of Seasonal customers) would see no more than a 10% bill increase (and many customers would experience decreased bills).

WEC asserts that its proposed tail block rate is based on a reasonable estimate of its long-term marginal costs because it reflects the cost of a progressively more expensive supply stack beyond its baseload resources.[16] The tail block rate is based on a 10-year levelized average of the expected price of three supply components: the discounted rate of the Vermont Wind contract (a committed resource); an estimate of the undiscounted amount that a utility would pay for the Vermont Wind resource; and a forward broker's quote for on-peak energy.

In support of the proposed marginal-cost calculation, WEC explains that it is a democratically led organization, with a Board of Directors that is elected by its members; and, in March 2001, the Board of Directors adopted a resolution outlining a strategy for meeting WEC's future power-supply needs. WEC states that this strategy "stresses long-term stably priced power supply commitments, clean and renewable resources, the willingness to develop and own our

15. Exh. WEC-SCF-Reb-1, Attachment 1-10 at 1.

16. WEC Initial Brief at 5 and 7.

own generation, and a preference for supply sources that are 'close to home.'"[17] WEC's 2003 Integrated Resource Plan ("IRP") specifically identified this strategy for long-term power supply preferences.[18] The implementation of this policy is reflected in WEC's current power portfolio: "the development of the Coventry Facility, the existing power purchase agreement with Hydro Quebec, and the recently executed contract with Vermont Wind, LLC, to provide power over 20 years at a set and stable price structure."[19]

The Department disputes WEC's marginal-cost calculations. The Department contends that WEC's calculation of marginal cost is not reasonable because WEC used the Vermont Wind contract to represent 2/3 of the energy component.[20] The Department maintains that the marginal cost of energy is better represented by using a market price and that wind energy is not marginal because it is intermittent and non-dispatchable.[21] In its brief, the Department urges the Board to "adopt the Department's methodology for calculating marginal cost, for the Residential class as well as the Small Commercial and Large Power classes."[22]

The Department bases its marginal-cost calculation entirely on the market price. According to WEC's bill-impact analysis of the Department's proposal, customers using less than 800 kWh/month would experience bill increases and customers using more than 800 kWh/month would experience bill decreases.[23] The average WEC residential customer, who uses just over 500 kWh/month, would experience a 7% bill increase. Some high-usage customers would experience a 10% decrease under the Department's proposal.

The Department asserts that its approach is appropriate because WEC will need to call on some resource to meet its peak demand and a wind resource cannot "meet peak demand 'at any

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17. Patt pf. at 8.

18. Exh. WEC AP-Reb-2.

19. Patt pf. at 8.

20. Department Initial Brief at 7.

21. Becker pf. at 6.

22. Department Initial Brief at 9.

23. Faryniarz pf. reb. at 6.

given time.'"[24] However, one-third of WEC's marginal-cost calculation is based on a forward estimate of the market price for energy at peak times. This amount appears to provide a reasonable balance among WEC's unavoidable need to purchase on-peak power from the market at times when intermittent resources, such as wind, are unavailable and WEC's preference for renewable power as articulated in its IRP.

WEC has proposed an initial block rate based on the low-cost power from the Coventry Project. As explained above, it is reasonable that the initial block rate reflects costs associated with this baseload resource. I am also persuaded that the tail block rate should reflect the costs associated with WEC's other power-supply decisions (both the Vermont Wind contract price calculations and market price estimates) and that this structure will allow WEC's members to see the cost impacts of these power-supply decisions.

I recommend the Board determine that WEC's proposed rate design for the Residential class is just and reasonable. The resulting rates properly reflect the costs associated with a more expensive supply mix. The initial block rate reflects the lower production cost of the primary baseload resource, i.e., power generated at the Coventry Project, and provides some recovery for embedded distribution costs. The marginal-cost calculation used to develop the Tail Block rate represents a reasonable balance of renewable energy power commitments and on-peak energy market purchases.

**Other Rate Design Elements**

*Findings*

43. Under WEC's proposed rate design, the Small Commercial and Large Power customer classes would continue to have a uniform block rate for energy based on their allocated cost of service. Faryniarz pf. at 8.

44. The current Small Commercial rate includes a customer charge of $9.89/month and an energy charge of $0.15532/kWh. Exh. WEC SCF-6c.

45. The current Seasonal Commercial rate includes a customer charge of $56.16 for a 6-month time period and an energy charge of $0.14523/kWh. Exh. WEC SCF-6d.

24. Department Reply Brief at 1.

46. The energy rate of $0.14118/kWh and customer charge of $9.62 for both the Small Commercial and formerly Seasonal Commercial customers is just and reasonable. The amount to be collected captures the embedded costs for this class as developed in the FACOS. Faryniarz pf. at 47.

47. All Small Commercial customers would experience a bill decrease as a result of WEC's proposed rate design changes. The decrease would vary from 6.6% to 9.1% depending on usage. Exh. WEC SCF-6c.

48. The large majority of formerly Seasonal Commercial customers would experience a bill decrease. Only 20 of these customers would experience a bill increase ranging from 0.4% to 1.6%. Exh. WEC SCF-6d.

49. The current Large Power rate includes a customer charge of $64.71/month, a demand charge of $13.08, and an energy charge of $0.08274/kWh. Exh. WEC SCF-6e.

50. The proposed customer charge of $16.41 for Large Power customers is based on the embedded customer-related costs for the Large Power class as calculated by the FACOS. Faryniarz pf. at 48.

51. The proposed demand charge of $10.62/kW for Large Power customers was determined by adding a portion of the distribution costs to serve the Large Power customers to the estimated long-run marginal cost of installed/unforced capacity of $3.60/kW per month. Faryniarz pf. at 48; tr. 6/4/10 at 76 (Faryniarz).

52. The proposed energy rate of $0.07496/kWh for Large Power customers was set to recover the remaining variable costs and revenue requirements of the Large Power class. Faryniarz pf. at 49.

53. A total of eleven WEC customers are served under the Large Power rate. Each of these customers will experience a bill decrease as a result of WEC's proposed rate design changes. The decrease is estimated to vary from 12.4% to 17.6% depending on customer usage. Exhs. WEC SCF-6e and SCF-6f.

54. The Security and Street Light rates are proposed to increase evenly by approximately 21% in order to collect the revenue requirement responsibility identified in the FACOS for this class. Faryniarz pf. at 48.

55. The current Security and Street Light rates are $12.42 per month for 100-watt fixtures and $24.83 per month for 400-watt fixtures. The proposed Security and Street Light rates are $15.03 per month for 100-watt fixtures and $30.04 per month for 400-watt fixtures. Exh. WEC SCF-5b.

56. WEC will continue to serve eight residential customers under Time-of-Day ("TOD") rates; however, no additional customers will be served under this rate. The proposed rates would narrow the difference between on-peak and off-peak rates for these residential TOD customers. As such, WEC anticipates that many of the current TOD customers will convert to the regular Residential tariff. Patt pf. at 7.

57. The current TOD rates for residential customers includes a customer charge of $12.65. During peak hours, the energy charge for the first 45 kWh used per month is $0.07387/kWh and $0.32347/kWh for all kWh used over 45 kWh. During off-peak hours, the energy charge for the first 105 kWh used per month is $0.07387/kWh and $0.10280/kWh for all kWh used over 105 kWh. Exh. WEC SCF-5b.

58. The proposed TOD rates for residential customers would include a customer charge of $9.65. During peak hours, the energy charge for the first 60 kWh used per month would be $0.07722/kWh and $0.19088/kWh for all kWh used over 60 kWh. During off-peak hours, the energy charge for the first 140 kWh used per month would be $0.07722/kWh and $0.16233/kWh for all kWh used over 140 kWh. Exh. WEC SCF-5b.

*Discussion*

The Department indicates that it opposes certain aspects of WEC's proposal related to the design of rates for the Small Commercial and Large Power classes. The Department recommends that the energy rate for the Small Commercial class be based on the same marginal-cost methodology that the Department used to calculate its proposal for the energy charge for the Residential class.[25] The Department also does not agree with WEC's approach for calculating

25. Becker pf. at 10.

the marginal cost associated with the demand charge for the Large Power class.[26] The Department recommends that a higher percentage of distribution costs should be included in the calculation to prevent high-load-factor customers from subsidizing low-load-factor customers. The Department does not have any concerns related to the proposed rates for the Security and Street Light class.

In its brief, the Department contends that the Board should adopt its methodology for calculating marginal cost "for the Residential class as well as the Small Commercial and Large Power classes."[27] As described in the Residential Rate Design section above, I am persuaded that WEC's marginal-cost calculations are reasonable. Accordingly, based on the findings above, I recommend the Board approve WEC's proposed changes to the Small Commercial class rates.

WEC and the Department each propose a customer charge of $16.41/month for the Large Power class. Both WEC and the Department set the demand charge next; finally, the energy rate was set residually. The difference between the two proposals is based on the marginal cost calculation used to determine the demand charge. The Department uses 85% of WEC's distribution costs to serve the Large Power customers. WEC uses 49% of distribution costs plus the estimated long-run marginal cost of installed/unforced capacity of $3.60/kW.[28]

The Department proposes to use a higher percentage of distribution costs " to prevent high load factor customers from subsidizing low load factor customers."[29] WEC asserts that the Department's Large Power rate calculation is based on the "same flawed approach to calculating long-term marginal distribution costs, and should be rejected in favor of WEC's proposed rates."[30] Furthermore, WEC's proposal follows the Department's preference for setting the

26. Becker pf. at 10.

27. Department Initial Brief at 9.

28. Faryniarz pf. at 48 and Becker pf. at 10.

29. Becker pf. at 10.

30. Faryniarz pf. reb. at 21.

demand charge, rather than the energy rate, at marginal cost for Large Power customers in order to help prevent high-load-factor customers from subsidizing low-load-factor customers.[31]

I find that WEC's proposed rate design for the Large Power class is appropriate and reasonable. I recommend that the Board adopt WEC's proposed rate design for the Large Power class.

**Regulatory Liabilities**

*Findings*

59. WEC's current rates include $200,008 for the amortization of Demand-Side Management ("DSM") expenses and $41,616 in water heater timer credits that were discontinued in 2000. Patt pf. at 7.

60. These revenues have been recorded to regulatory liability and deferred liability accounts. Patt pf. at 7.

61. These costs should continue to be accounted for as regulatory liabilities until WEC's next rate case so that the costs can be appropriately reviewed. Becker pf. at 12.

*Discussion*

WEC proposes to discontinue recording revenues related to DSM expenses and water heater timer credits as regulatory liabilities. WEC asserts that it is just and reasonable for these accounts to be incorporated into WEC's overall rate base and that it should discontinue these accounting treatments.[32]

The Department does not support this approach. The Department maintains that the costs booked to the regulatory liability accounts have not been appropriately reviewed. The Department contends that these items should continue to be recorded as regulatory liabilities until

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31. "The Department believes that having the demand rate set at the marginal cost is preferred over having the energy rate set in that manner for the Large Power class because it will help prevent high load factor customers from subsidizing low load factor customers." Becker pf. at 11.

32. WEC Initial Brief at 15.

it can determine whether the costs were reasonable and meet the standards of Vermont ratemaking practices.[33]

I share the Department's concerns regarding discontinuing the regulatory liability accounts without the review that would be conducted in a rate case. Accordingly, I recommend that the Board direct WEC to continue to account for the revenues associated with DSM expenses and water heater timer credits using the appropriate existing regulatory liability accounts. At the technical hearing, WEC indicated that it may file a proposed rate increase this year to take effect next year.[34] I expect that the Department will examine these costs when it reviews that filing.

## IV. CONCLUSION

For the reasons discussed above, I recommend that the Board approve WEC's proposed rate design changes with the exception of the proposal to discontinue certain regulatory liability accounts.

This Proposal for Decision has been served on all parties to this proceeding in accordance with 3 V.S.A. § 811.

Dated at Montpelier, Vermont, this 3rd day of September, 2010.

s/ Andrea C. McHugh
Andrea C. McHugh
Hearing Officer

33. Department Initial Brief at 9.

34. Tr. 6/4/10 at 109 (Patt).

## V. BOARD DISCUSSION

On August 27, 2010, WEC filed comments in support of the Hearing Officer's Proposal for Decision. WEC states that the Hearing Officer acknowledged the potential that an inclining block rate structure could promote the efficient use of electricity, but she did not specifically rely upon this possibility. WEC asserts that while there is evidence in the record to support findings to conclude that an inclining block rate design would further the goal of promoting efficiency, it is not necessary for the Board to do so in order to adopt the Proposal for Decision. WEC also identified two technical errors in Findings 35 and 40. The Department also filed comments on August 27. The Department contends that the Proposal for Decision errs in several areas and that it should be significantly revised by the Board. The Department asserts that the Proposal for Decision: (1) fails to address whether the rate design proposed by WEC satisfies applicable statutory requirements; (2) improperly places the burden of proof on the Department to prove that WEC's proposal does not comply with the statute, rather than requiring WEC to demonstrate compliance; (3) fails to support its acceptance of intermittent, non-dispatchable wind generation as a "marginal" resource; and (4) departs, without explanation, from Board precedent regarding the initial block of NYPA power. We address each of these issues, in turn, below.

The Department asserts that under the revised 30 V.S.A. Section 218(b), the Board is directed to consider inclining block rates for residential customers "to encourage efficient energy use." The Department states that the Proposal for Decision erroneously adopts WEC's view that all reductions in energy usage would result in increases of economic efficiency. The Department contends that this view is "inconsistent with the statutory directive to encourage efficient use."

We have carefully reviewed the Department's comments, the Proposal for Decision, and the statutory language, and conclude that the Department misconstrues both the statute and the Proposal for Decision.

Our analysis begins with the statutory language. Section 218(b) provides in relevant part:

> (b) The department of public service shall propose, and the board through the establishment of rates of return, rates, tolls, charges, or schedules shall encourage the implementation by electric and gas utilities of energy-efficiency and load management measures which will be cost-effective for the utilities and their customers on a life cycle cost basis. The board shall approve rate designs to encourage the efficient use of natural gas and electricity, including consideration

> of the creation of an inclining block rate structure for residential rate customers with an initial block of low-cost power available to all residences.

The Department focuses on the second sentence of Section 218(b), interpreting that sentence as referring to economic efficiency (the efficiency of resource allocation), which is one of the long-standing principles used by the Board when considering rate design proposals. However, the first sentence of Section 218(b) directs the Board and Department's efforts toward encouraging *energy* efficiency. Thus, when viewed in its full context, the use of the term "efficiency" in the second sentence is more reasonably read as referring to energy efficiency, not economic efficiency. Seen from this perspective, the fundamental economic principle governing the relationship between supply and demand (as price increases demand decreases) would support a conclusion that inclining block rates would promote energy efficiency.

A second flaw in the Department's statutory analysis lies in its assertion that Section 218(b) establishes a "statutory requirement" that the Board must find that an inclining block rate structure must encourage efficiency before such a structure can be approved.[35] Nowhere does Section 218(b) establish such a requirement. Instead, the statute in plain language identifies an inclining block rate structure as one type of residential rate design that the Board should consider to encourage the efficient use of natural gas and electricity. There is no suggestion in the statute that inclining block rates cannot be approved to further other appropriate policy objectives.

It is precisely to advance other appropriate objectives that the Hearing Officer has recommended approval of WEC's inclining block rate design. While the Hearing Officer recognizes the potential efficiency benefits of implementing an inclining block rate structure, she does not rely on such benefits to support her recommendation. As the Department acknowledges, the Proposal for Decision contains no factual findings that would support WEC's assertion that the inclining block rate structure will promote the efficient use of energy. In fact, the Hearing Officer recognizes that "the Department presented reasonable arguments against this assertion related to cost causation and cross-subsidization."[36] For this reason, the Hearing Officer bases her recommendation regarding approval of an inclining block rate structure on

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35. Department Comments at 3.

36. Proposal for Decision at 10.

WEC's policy objective of allocating low-cost power from the Coventry Project to all residential customers, rather than on any increases in efficiency that such a rate structure may produce.

Turning to the second issue raised by the Department, as the Hearing Officer describes, "similar inclining block rate-design structures have been in place at WEC and other Vermont utilities for decades."[37] The Hearing Officer further explains that "the Department has not presented any evidence to suggest that WEC's historic inclining rates have encouraged inefficient energy use."[38] The Department takes issue with this statement and alleges that this assertion inappropriately shifts the burden of proof to the Department.

We have considered the Department's concern; however, in the context of the discussion, we see that the Hearing Officer intended to demonstrate that the Department did not present evidence that existing inclining block rate structures, including WEC's current rate design, promote the inefficient use of energy. We agree that it is relevant to note that the Department did not present information related to the inefficient use of energy that would support a departure from an existing rate structure that had been approved by the Board. However, we also recognize that the Hearing Officer's statement is not essential to the decision because, first, her recommendation is based on acceptance of WEC's policy objective to spread the benefits of low-cost power from the Coventry Project to all residential customers, and, second, as we have noted above, there is no statutory requirement that an inclining block rate structure must promote efficiency (whether economic or energy efficiency).

The Department contends that the Proposal for Decision fails to resolve the issue of whether it is appropriate to consider wind in the calculation of marginal costs. The Department alleges that this failure is a legal infirmity of the Proposal for Decision and "creates a muddled policy environment for calculation of marginal costs by Vermont utilities and regulators." In its comments on the Proposal for Decision, the Department asserts if wind is included in WEC's marginal cost calculation, it should be comprised of no more than one-third wind power since the expected capacity factor of the Vermont Wind project is "only about 32%."

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37. Proposal for Decision at 11.

38. Proposal for Decision at 11.

The Hearing Officer recommends that the Board approve WEC's marginal-cost calculation and explains her reasoning; as such, we do not agree with the Department's contention that the Proposal for Decision is deficient in this regard. We believe that the Hearing Officer clearly describes her recommendation and presents findings to support her conclusions.

The Hearing Officer accepts WEC's proposal which is based on a long-run approach[39] to the marginal-cost calculation for its specific circumstances. As WEC describes in its rebuttal testimony, marginal-cost theorists stress that it is important to reflect a utility's "actual circumstances" in long-term marginal-cost calculations.[40] The Board has previously recognized the value of long-run marginal costs in rate designs:

> A general principle in rate design is that consumers should pay the full costs of their consumption decisions. By 'costs', we mean long-run marginal costs, which when fully reflected in prices, inform consumers of the total costs of the resources devoted to meeting their demand. Prices set at long-run marginal costs are therefore said to be 'economically efficient.'[41]

Accordingly, we find that it is appropriate to base a marginal-cost calculation on an estimate of long-term actual costs that the utility expects to incur in order to achieve economically efficient prices.

As the Hearing Officer explains, WEC's 2003 IRP specifically identified its strategy for long-term power supply preferences.[42] WEC states that its strategy "stresses long-term stably priced power supply commitments, clean and renewable resources, the willingness to develop and own our own generation, and a preference for supply sources that are 'close to home.'" Given WEC's preference for renewable power resources as articulated in its long-term power supply strategy, we conclude that it is appropriate for WEC to include renewable power as a resource in its long-term marginal-cost calculation. WEC accomplishes this by using the

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39. Faryniarz pf. at 26.

40. Faryniarz pf. reb. at 15.

41. Docket 5835, Order of 3/17/97 at 11.

42. Proposal for Decision at 11-12.

Vermont Wind contract prices to "derive an estimate" to reflect "WEC's commitment to renewable energy in the form of long term contracts that are stably-priced."[43]

We do not agree with the Department's contention that WEC's marginal-cost calculation should include no more than one-third wind power. The expected 32% capacity factor for the Vermont Wind project is not relevant to the equation because the wind power contract and the market estimate prices together represent a "range or distribution of long-run production cost outcomes."[44] It is not necessary to account for the projected capacity factor of a specific resource, Vermont Wind, in the equation. WEC reasonably uses a methodology to determine a range that recognizes the uncertainties associated with long-term power production costs including emerging production technologies, volatile forward prices for energy and capacity, a myriad of potential long-term contract options, and changing market rules.[45]

We conclude, as the Hearing Officer does, that WEC appropriately represents a balance of its renewable energy power commitments and potential energy market purchases in its Tail Block rate. In WEC's specific situation, it would be short-sighted not to include long-term contractual commitments and allowances for the renewable energy goals articulated in its IRP. We recognize that each utility's unique circumstances need to be examined in this regulatory environment and we conclude that after considering the facts in this case, WEC's approach is appropriate for its situation.

Also, the Department asserts that the Proposal for Decision departs from Board precedent regarding the initial block of NYPA power. In its brief, the Department argued that if an inclining block rate structure is approved, the Board should set the initial block of low-cost power based on the size of WEC's actual NYPA allocation (about 75 kWh per customer).[46] In its comments on the Proposal for Decision, the Department explains that this approach would be consistent with the Board's April 27, 2006, Order in Docket 7052, concerning the tariff filing of

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43. Faryniarz pf. at 35.

44. Faryniarz pf. at 35.

45. Faryniarz pf. at 34.

46. Department Brief at 7.

the City of Burlington Electric Department ("BED"), in which the Board "rejected the utility's arguments regarding the impact of this decision on low-income residents, concluding that the considerations advanced by BED warranted phasing in the new rate design over two years." The Department indicates that it would support a similar outcome in this case.

We see a fundamental difference between the proposal put forth by BED and WEC's tariff filing. BED proposed a larger initial block than could be supported by its low-cost power resource (in that case, NYPA), while the Coventry Project, WEC's primary low-cost baseload resource, provides significantly more energy than would be consumed in the proposed initial block. However, in both the BED case and WEC's proposal, the rate design structure seeks to ensure that all residential customers benefit from low-cost power investments (and, in WEC's situation all residential customers will benefit from power provided by NYPA and the Coventry Project). In addition, in both cases the tail block of energy is priced as close to marginal costs as possible.[47] For these reasons, we conclude that the Hearing Officer's recommendation is in fact consistent with Board precedent.

In its comments, WEC indicates that Finding 35 should state that "WEC proposes to set the Baseload Block at $0.07722" rather than $0.7722. WEC also points out that Finding 40 incorrectly refers to monthly usage for Seasonal Residential customers. Instead, this finding should correctly refer to usage on a semi-annual basis. We adopt these technical corrections.

Therefore, Finding 35 now reads:

35. WEC proposes to set the Baseload Block rate at $0.07722. This rate was set residually based on the amount estimated to be collected from customers under the Tail Block rate (assumed for all usage over 200 kWh per month for year-round Residential customers and over 50 kWh per month for Seasonal Residential customers). In order to avoid overcollection of the cost of service for the class and to ensure revenue-neutrality, the Baseload Block rate is lower than the sum of its estimated marginal production costs and embedded distribution costs identified in the FACOS. Faryniarz pf. at 30; exh. WEC SCF-6a.

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47. In Docket 7052, the Board stated that "retail rates have been to the greatest extent possible, set to approximate marginal costs." Order of 4/27/06 at 21.

Similarly, Finding 40 now reads:

40. With the implementation of the proposed rate design, approximately 85 of the Seasonal Residential customers would experience bill increases ranging from 10% to 11.7%. These ratepayers are high-use customers with consumption levels ranging from 3,000 to 10,000 kWh per six-month period month. Exh. WEC SCF-6b.

For the reasons described above, we do not agree with the Department's assertion that the Proposal for Decision needs to be significantly revised. Instead, we adopt the Hearing Officer's findings, with WEC's corrections to Findings 35 and 40, and conclusions.

## V. ORDER

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that:

1. The findings and recommendations of the Hearing Officer are adopted.

2. Washington Electric Cooperative, Inc., is entitled to rates consistent with the findings and conclusions above that will collect $9,797,046 from the Residential class, $732,266 from the Small Commercial Class, $369,143 from the Large Power Class, and $67,258 from the Security and Street Light Class resulting in total utility revenues of $10,965,713.

3. Washington Electric Cooperative, Inc., shall continue to account for the revenues associated with Demand-Side Management expenses and water heater timer credits using the appropriate existing regulatory liability accounts.

4. Washington Electric Cooperative, Inc., shall file compliance tariffs within two weeks of the issuance of this Order.

Dated at Montpelier, Vermont, this 13th day of September, 2010.

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| s/ James Volz | PUBLIC SERVICE |
| s/ David C. Coen | BOARD |
| | OF VERMONT |

OFFICE OF THE CLERK

FILED: September 13, 2010

ATTEST: s/ Susan M. Hudson
Clerk of the Board

*NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: psb.clerk@state.vt.us)*

*Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.*